Gender Differences in Health Care Access Indicators in an Urban, Low-Income Community

A B S T R A C T

Objectives. This study examined factors associated with gender differences in health insurance coverage and having a usual source of medical care.

Methods. In-person interviews were conducted with a community sample of 695 residents of Central Harlem, New York City. Predictors of the 2 outcome variables and the interaction of key variables with gender were analyzed via logistic regression.

Results. No strong patterns emerged to explain gender differentials in having insurance coverage and having a usual provider. However, women employed full time had increased odds of insurance coverage, whereas employment had no similar effect among men. Public assistance evidenced a strong relationship with insurance coverage among both men and women. Socioeconomic factors and health insurance were important independent predictors of having a usual source of health care for men but had little effect among women.

Conclusions. Expanding the availability of both public insurance and affordable private coverage for men living in low-income communities is an important means of reducing gender disparities in access to health care. Public assistance is an important means of enabling access to health care for men as well as women. (Am J Public Health. 2000;90:909–916)

Cheryl Merzel, DrPH

A common premise of health research is that gender operates as an independent influence on virtually any population-based outcome of interest. This assertion is supported in the literature, which consistently indicates that men and women differ in regard to health, access to health care, and use of health services. As a result, gender is typically viewed as a variable that must be controlled in analyses. This approach, however, does not permit explicit examination of the underlying inference that predictive models may vary by gender. As a result, our understanding of most influences on health-related outcomes is based on effects independent of gender.

While many studies identify the general determinants of health insurance and a usual source of medical care, including gender, few examine how these factors differ between men and women. This is a significant gap in that most research shows that women are more likely than men to have access to both insurance coverage and a usual source of care. Understanding the interplay between gender and the distinct determinants of these indicators has important implications for policies designed to promote equal access to health care.

US national surveys demonstrate that men are less likely than women to have health insurance coverage.^{1,2} In general, the most important determinants of insurance status are income and employment-related factors, the latter the result of the predominance of employment-based coverage in the United States.^{3,4} While men who work full time are more likely than women who work full time to have employment-based coverage, this trend may be a result of the tendency of married working women to decline their own coverage in favor of their husband's insurance. Indeed, single women who work full time are slightly more likely than men to be covered through their jobs, primarily as a result of differences in the types of jobs held by single men and women.⁵ In general, however, national data indicate that women are more likely than men to report cost as a barrier to receiving needed care.⁶

Thus, the fact that men are more likely than women to lack insurance coverage may be related to gender differences in job opportunities among single workers and in the kind of coverage held. This explanation is supported by evidence suggesting that gender differences in insurance coverage are the result of greater coverage rates for women through public insurance.2 Women's increased access to public insurance, as a result of Medicaid's previous link with public assistance and childbearing, suggests that some men remain uncovered because they are ineligible for public benefits and are unable to afford private health insurance or obtain it through employment. Gender differences in coverage are particularly pronounced among young adults, who accounted for nearly 20% of the uninsured population in 1996, primarily as a result of differences in public coverage.² Limited employment opportunities in low-income communities, compounded with gender differences in public assistance tied to childbearing, may exacerbate the lack of coverage among low-income young adult men.

National surveys indicate that women are more likely than men to have a usual source of medical care as well as insurance coverage. 7-10 Perception of the need for care appears to be an important general influence on having a usual source of care. The majority of Americans without a regular source of medical care report that they do not have one because they have little need for health ser-

The author is with the Division of Sociomedical Sciences and the Harlem Health Promotion Center, Joseph L. Mailman School of Public Health, Columbia University, New York City.

Requests for reprints should be sent to Cheryl Merzel, DrPH, Mailman School of Public Health of Columbia University, 600 W 168th St, Room 412, New York, NY 10032 (e-mail: cm449@columbia.edu).

This article was accepted February 25, 2000.

vices. ^{7,8,11,12} Most studies of the predictors of having a usual source of care do not include attitudinal influences and focus on such socioeconomic and demographic factors as gender, age, income, insurance coverage, education, race/ethnicity, and geographic area. ^{7,9,13–19}

Thus, it is difficult to assess the role of perceived need for health care in explaining the gender differential in access indicators. The connection of having a usual source of care with perceived need for health services is supported by the frequent finding that people without a usual source of care tend to be in better health than those with a regular source. ^{7,9,10,13,20} However, lack of a regular source of care also is more prevalent among disadvantaged populations, including low-income individuals, the less educated, racial and ethnic minorities, inner-city residents, and the uninsured. ^{8,9,12,19,21}

The tendency for women to be more likely to have a usual source of health care may be related to gender differences in health perceptions and attitudes. A number of studies have shown that women report higher rates of illness than do men, 22-29 suggesting that women have a greater need for medical care and, therefore, may be more likely to obtain insurance and establish a regular source of care. Debate exists regarding whether the difference in reported morbidity reflects physiological experiences or gender dissimilarities in perceptions of illness and response to symptoms. ^{23,28,30,31} Some argue that the picture is more complex and note that gender differences in health are not uniformly expressed and can vary by type of health condition and life stage.³² Regardless of symptom experience, women may be more willing to seek out health care, 26,28 showing significantly greater awareness of their health and a propensity to seek treatment when they are ill.²⁴ Thus, women may have a stronger inducement for obtaining insurance and a regular health care provider.

In summary, the evidence suggests that insurance coverage is strongly related to economic and employment influences. Health and attitudinal factors appear to be important correlates of having a regular source of care. In addition, these factors all vary between men and women. Few studies, however, integrate these patterns to examine the extent to which such influences account for the well-documented gender difference in standard indicators of access to health care. The purpose of this article is to address this gap in the literature by examining the ways in which health status, attitudes toward health and health care, and socioeconomic factors explain gender differences in health care coverage and having a regular source of medical care.

The present study addressed the following specific questions: (1) To what extent do

employment status and public assistance account for the gender gap in health insurance coverage, when health status is controlled for? (2) Do attitudes toward health care and perceptions of health contribute to gender differences in having a usual source of health care? and (3) Is the relationship between gender and access modified by marital status and having children? These factors were hypothesized to interact with gender based on the predominant evidence from the literature regarding the most significant predictors of insurance and regular source of care. In addition, the present study sought to identify the gender-specific determinants of having health insurance and a usual source of care.

Methods

Sample

This study was based on a representative survey of residents of Central Harlem in New York City. Despite its long and rich history as a center of African American culture, Central Harlem has exhibited excess mortality relative to populations in other communities for a number of years. 33,34 The Harlem Health Promotion Center conducted the Harlem Household Survey in 1992 to 1994 to determine the risk factors associated with the community's excess mortality. The survey involved a comprehensive assessment of the community's health, access to health care, preventive health practices, and social experiences.

The survey was based on an enumeration of all dwelling units on randomly selected blocks in the Central Harlem health district. Respondents were randomly selected within households according to the procedure developed by Kish.³⁵ Household members were eligible for the survey interview if they were aged 18 to 65 years, spoke English, and were able to answer the survey questions. Of the 963 adults selected, 695 completed the interview, resulting in a response rate of 72%. All interviews were conducted in person by trained community residents using a structured questionnaire. Details on sampling and interview procedures are provided elsewhere. 36,37 Of the respondents included in the final sample, 408 (59%) were women, and 287 (41%) were men. The sample was 84% African American, and 83% of the respondents were born in the United States.

Measures

The 2 dependent variables in the analysis were current health insurance coverage and having a usual source of care. Respondents with public (Medicaid or Medicare) or

private coverage were coded as having insurance, and those with no coverage of any kind were coded as not having coverage. Health care coverage also served as a predictor of usual source of care and was measured in the following 3 categories based on the classification scheme used in the national Medical Expenditure Panel Survey (MEPS)¹⁰: (1) public insurance only, (2) any private insurance, and (3) no coverage. A respondent was considered to have a usual source of care if she or he responded yes to the following question: "Are there particular health people you see or places where you usually go when you are sick or need advice about your health?"

Basic demographic characteristics included age, marital status, and having children. Age was measured in 3 categories: 18 through 24 years, 25 through 49 years, and 50 through 65 years. As noted earlier, young adults are less likely to have insurance coverage or a usual source of medical care. Marital status, which may affect eligibility for health coverage through a spouse's insurance, was measured as whether or not the respondent was legally married. Whether the respondent had children also was included as a measure because it could increase the likelihood of eligibility for public insurance and connectedness to health care.

Because of the high intercorrelations among many of the variables considered as measures of self-reported health status, the final measures used in the analysis represented a reduced set that displayed the highest Pearson correlations with the outcome variables of interest and intercorrelations of less than .50. The self-reported health measures selected included both global perceptions of health and illness-specific variables: whether or not the respondent currently had any major health problems; how much the respondent had been bothered by these problems in the previous year (extremely/very much vs moderately/slightly/not at all; respondents reporting no major health problems were placed in the "not at all" category); whether the respondent reported having hypertension, diabetes, or asthma, as a measure of chronic conditions that could influence the need for health care: and the number of health problems experienced in the previous year, based on a list of 51 items capturing such self-reported symptoms as repeated headaches, trouble concentrating, frequent colds, and stomach pains.

Measures of attitudes toward health and health care were based on responses to the following items: "A person who is ill should always try to handle the problem him- or herself before going to the doctor or other health worker" and "When you come right down to it, there's not much a person can do to keep from getting sick." A categorical rather than continuous measurement scheme was selected to enhance interpretation of results in logistic regression analyses; strongly/ somewhat/slightly agree was coded as 1, and strongly/somewhat/slightly disagree was coded as 0.

Socioeconomic measures included income, employment status, and education. Annual household income was divided into the following categories: \$9000 or less, \$9001 to \$20000, and more than \$20000. These categories were selected to capture the individuals with very low incomes who would most likely be eligible for public aid and to reflect the sample's actual income distribution (64% of respondents reported incomes of \$20000 or less). Because 58 respondents (8.3% of the sample) were missing income data, these individuals were treated as a separate group in the analysis to avoid a sizable reduction in sample size and the possible biasing of findings that would result if they were excluded.

Employment was measured as full-time work vs part-time work or unemployment. This categorization was selected because full-time employment is most likely to be associated with the offering of employee health insurance. Only 7% of the sample (n = 47) were employed part time; thus, separate analysis of this group was not feasible.

Education was measured as a dichotomous variable divided between those having no degree and those earning a high school diploma or equivalency degree or higher. The public assistance variable reflected whether the respondent was receiving any of the following at the time of the interview: food stamps, Aid to Families with Dependent Children, home relief, or Social Security income.

Data Analysis

Chi-square tests and t tests were used to examine bivariate relationships between independent and dependent variables. Multivariate analysis was based on logistic regression because of the binary nature of the outcome variables. Regressions were conducted in a hierarchical manner to allow assessment of the relative contribution of each major predictive domain to the model. Most independent variables were dummy coded, while number of health problems was treated as a continuous variable. One set of regressions was conducted on the full sample and included interaction terms for the joint effects of gender and key variables. Another set of regressions was gender specific to allow examination of the specific determinants of health insurance and a regular source of care within each group. All analyses were conducted with SPSS software (SPSS, Chicago, Ill).

TABLE 1—Relationships of Demographic, Socioeconomic, Health, and Attitudinal Variables to Health Care Coverage, by Gender: Harlem Household Survey, 1992-1994

	N	1 en	Women		
Characteristic	Uninsured (n = 74)	Insured (n = 213)	Uninsured (n = 58)	Insured (n = 350)	
Age, y, %					
18–24	16*	7	19	11	
25–49	65	67	52	66	
50–65	19	26	29	23	
Has children, %	57	64	78	76	
Married, %	22	17	28**	12	
Annual household income, \$, %					
<9000	30**	39	48*	38	
9001-20000	26	15	28	21	
>20 000	30	40	14	33	
Missing	15	6	10	8	
Currently works full time, %	45	39	26	38	
Has high school diploma, %	74	65	59*	72	
Receives public assistance, %	7***	41	21***	51	
Currently has major health problems, %	43	51	50	63	
Has asthma, hypertension, or diabetes, %	22	33	36	39	
No. of symptoms in past year, mean (SD)	3.3 (4.19)	4.2 (4.28)	4.1* (4.20)	5.4 (5.14)	
Bothered a lot by health problems, %	12	13	22	26	
Agrees that a person cannot do much to keep from getting sick, %	53	46	55	52	
Agrees that ill person should always handle problem him/herself before going to doctor, %	58*	42	45	44	

Note. As a result of rounding, percentages may not total 100.

*P≤.05; **P≤.01; ***P≤.001.

Results

As in the general US populace, women in Central Harlem were more likely than men to have health care coverage. Eightysix percent of women in the Harlem sample had either private coverage or public coverage, while 74% of the men were covered. Harlem women also were more likely than Harlem men to be covered by public sources alone (49% vs 41%); no significant gender differences were found in the proportions with private insurance (33% of men and 37% of women). Women were more likely than men to have a usual source of medical care (80% vs 66%). Approximately one quarter of the sample men and women used hospitals as their usual source of care. More women than men used a nonhospital source of care (57% vs 41%).

Table 1 presents the relationship of demographic, socioeconomic, health, and attitudinal factors to insurance status by gender in the Harlem sample. As has been shown in national samples, the uninsured in Harlem tended to be younger men and of lower income. However, working full time was not associated with health coverage among men and was only weakly associated among women. For both men and women, receipt of public assistance was related to having health care coverage. None of the health status measures were associated with health coverage for men, but having more health problems was related to having health care coverage among women. Attitudes toward health care were associated with insurance coverage among men but not among women.

Among women as well as men, having a regular source of care was associated with higher income and working full time (Table 2). Both men and women with a usual source of care were more likely to be in poorer health than those without one. Having private insurance was associated with having a usual provider for both men and women; public insurance reduced the likelihood of having a usual source of care only among women. Men and women also differed in regard to the relationship of age, having children, receipt of public assistance, and health care attitudes.

TABLE 2—Relationships of Demographic, Socioeconomic, Health, and Attitudinal Variables to Usual Source of Care, by Gender: Harlem Household Survey, 1992–1994

	Me	n	Women		
Characteristic	No USOC (n = 97)	USOC (n = 190)	No USOC (n = 79)	USOC (n = 327)	
Age, y, %					
18–24	17**	6	13	12	
25-49	64	67	70	63	
50-65	20	27	18	26	
Has children, %	64	62	67*	79	
Married, %	19	18	11	15	
Annual household income, \$, %					
<9000	46***	32	61***	34	
9001-20000	19	17	15	24	
>20 000	21	46	18	34	
Missing	14	5	6	9	
Currently works full time, %	33*	45	21**	40	
Has high school diploma, %	60	71	68	71	
Receives public assistance, %	35	31	58*	44	
Has health care coverage, %	62***	81	80	87	
Has private insurance, %	23**	39	20***	41	
Has public coverage only, %	39	42	59*	46	
Currently has major health problems, %	34***	56	40***	66	
Has asthma, hypertension, or diabetes, %	22*	34	25**	43	
No. of symptoms in past year, mean (SD)	2.8*** (3.62)	4.6 (4.45)	3.5*** (4.19)	5.6 (5.14	
Bothered a lot by health problems, %	12	13	11***	29	
Agrees that a person cannot do much to keep from getting sick, %	45	49	56	52	
Agrees that ill person should always handle problem him/herself before going to doctor, %	54	43	59**	41	

Note. USOC = usual source of care. As a result of rounding, percentages may not total 100. $*P \le .05$; $**P \le .01$; $***P \le .001$.

Multivariate findings in terms of the predictors of insurance coverage and having a usual source of care are summarized in the remainder of this section. In the first set of multivariate analyses, the logistic regression analysis of each access indicator proceeded in hierarchical stages wherein gender was entered first (stage 1 in Tables 3 and 4), followed by each of the major domains of predictor variables (summarized in stage 2 of Tables 3 and 4) and, finally, interaction effects (stage 3 in Tables 3 and 4). This approach allowed examination of indirect effects and the mediating influence of the other variables on the initial relationship between gender and access outcomes.

Table 3 indicates that gender was associated initially with insurance, with the odds of coverage 2 times higher for women than for men in stage 1. There was little change in the magnitude of the odds ratio for gender when demographic, health, health attitudes, and socioeconomic variables were added, indicating no substantial mediating by these factors

of the direct effect of gender. Addition of public assistance to the model reduced the gender effect odds ratio from 2.03 to 1.63 (for ease of presentation, the tables do not show all of the individual regression stages in which each variable domain was entered). However, the interaction between gender and public assistance was not significant.

The interaction of gender and employment was significant, indicating increased odds of coverage for women (vs men) who worked full time. Marital status and having children did not modify the relationship between gender and insurance coverage. The final stage indicates that the independent predictors of having insurance were older age, higher income, receipt of public assistance, and full-time employment for women. Individuals missing income information had lower odds of insurance coverage than those in the highest income reference group, suggesting that these individuals were among the group with relatively low incomes.

The odds of having a usual source of care were approximately twice as high for women as for men initially, and the gender odds ratio was only slightly reduced when variables representing demographic characteristics, health status, health attitudes, insurance, and socioeconomic factors were included (Table 4). No interactions between gender and health or health attitudes were found. The final model (stage 3) indicates that having major health problems, number of symptoms, and the belief that illness is unavoidable were weak independent predictors of having a usual source of medical care. Stronger effects were found for private and public insurance, income, and, for women only, having children.

The analysis next examined, among both men and women, the unique independent predictors of health care coverage and having a usual source of medical care. This analysis was conducted because of the impracticality of adding interaction terms for gender and each independent variable and the utility of obtaining separate odds ratios for men and women. For both men and women, having health care coverage was related to higher income and receipt of public assistance (Table 5). Men aged 18 to 24 years were marginally less likely to have insurance than those aged 50 to 65 years. Among women, full-time employment also was a significant predictor of having a usual source of care; having a high school diploma was of borderline significance.

Public assistance appeared to make the strongest contribution to the model for both women and men. Health status did not predict insurance coverage for men or women at any stage of the analysis. Attitudes toward health and health care had no independent effect on insurance for either men or women. Marriage was weakly related to insurance coverage among women, with married women having lower odds of coverage than unmarried women.

In comparison with insurance coverage, the specific predictors of having a usual source of medical care varied more substantially between men and women. Health status appeared to be a more significant predictor for men, after control for other factors. Health care attitudes were related to having a usual source of care for women but only weakly so for men. These findings, however, should be interpreted cautiously, given the lack of interaction effects noted earlier. Public insurance had a sizable odds ratio among men but was not significant for women. Thus, the odds of having a usual source of care were 4 times higher among men with public insurance than among men without public coverage.

Private insurance was weakly related to having a usual source of care among men, while it had no effect among women. Low in-

TABLE 3—Logistic Regression on Any Health Care Coverage: Full Sample (n = 695), Harlem Household Survey, 1992–1994

Characteristic (Reference Group)	Stage 1		Stage 2		Stage 3	
	Adjusted OR	95% CI	Adjusted OR	95% CI	Adjusted OR	95% CI
Female (male)	2.05***	1.39, 3.01	1.63**	1.04, 2.57	1.58	0.58, 4.31
Aged 18-24 y (50-65 y)			0.37**	0.17, 0.81	0.40**	0.18, 0.88
Aged 25-49 y (50-65 y)			0.72	0.41, 1.25	0.78	0.44, 1.37
Has children (no)			1.01	0.60, 1.71	1.22	0.62, 2.42
Legally married (no)			0.63*	0.36, 1.10	0.81	0.37, 1.77
Has any major health problems (no)			0.97	0.56, 1.69	0.95	0.54, 1.65
Has asthma, hypertension, or diabetes (no)			1.29	0.76, 2.20	1.41	0.83, 2.43
No. of symptoms			1.05	0.98, 1.11	1.04	0.98, 1.11
Bothered a lot by health problems (bothered none/some)			0.85	0.43, 1.67	0.83	0.42, 1.65
Agrees that a person cannot do much to keep from getting sick (disagrees)			0.79	0.50, 1.24	0.80	0.51, 1.27
Agrees that ill person should always handle problem him/herself before going to doctor (disagrees)			0.81	0.51, 1.28	0.80	0.50, 1.27
Works full time (part time/unemployed)			2.21***	1.28, 3.80	1.23	0.61, 2.49
Has high school diploma or higher (no degree)			1.21	0.86, 1.70	1.17	0.83, 1.65
Household income <\$9000 (>\$20000)			0.27****	0.14, 0.53	0.25****	0.13, 0.50
Household income \$9001-\$20000 (>\$20000)			0.36***	0.19, 0.67	0.35***	0.18, 0.66
Missing income (>\$20 000)			0.26****	0.12, 0.58	0.24****	0.11, 0.54
Receives public assistance (no assistance)			15.53****	8.04, 29.99	19.52****	6.81, 55.9
Female $ imes$ works full time					3.44**	1.25, 9.44
Female $ imes$ public assistance					0.76	0.21, 2.79
Female \times has children					0.64	0.23, 1.81
Female \times married					0.65	0.21, 1.97

Note. OR = odds ratio; CI = confidence interval. $^*P \le .10; ^{**}P \le .05; ^{***}P \le .01; ^{****}P \le .001.$

TABLE 4—Logistic Regression on Any Usual Source of Health Care: Full Sample (n = 695), Harlem Household Survey, 1992–1994

Characteristic	Stage 1		Stage 2		Stage 3	
(Reference Group)	Adjusted OR	95% CI	Adjusted OR	95% CI	Adjusted OR	95% CI
Female (male)	2.10****	1.48, 2.98	1.83***	1.22, 2.75	1.57	0.60, 4.14
Aged 18–24 y (50–65 y)			0.74	0.36, 1.53	0.71	0.34, 1.48
Aged 25-49 y (50-65 y)			0.73	0.43, 1.22	0.70	0.42, 1.19
Has children (no)			1.25	0.80, 1.98	0.83	0.45, 1.53
Legally married (no)			1.02	0.58, 1.79	1.05	0.59, 1.86
Has any major health problems (no)			1.84**	1.13, 3.00	1.97*	0.99, 3.91
Has asthma, hypertension, or diabetes (no)			1.37	0.85, 2.21	1.35	0.83, 2.19
No. of symptoms			1.09***	1.03, 1.16	1.09*	0.99, 1.20
Bothered a lot by health problems (bothered none/some)			1.01	0.54, 1.89	1.04	0.55, 1.97
Agrees that a person cannot do much to keep from getting sick (disagrees)			1.36	0.90, 2.05	1.63*	0.91, 2.92
Agrees that ill person should always handle problem him/herself before going to doctor (disagrees)			0.61**	0.41, 0.91	0.75	0.42, 1.33
Has private insurance (no coverage)			1.92**	1.04, 3.56	2.02**	1.09, 3.76
Has public insurance (no coverage)			1.91**	1.01, 3.64	1.99**	1.03, 3.82
Works full time (part time/unemployed)			1.50	0.84, 2.67	1.57	0.88, 2.81
Has high school diploma or higher (no degree)			1.24	0.90, 1.70	1.23	0.90, 1.70
Household income <\$9000 (>\$20000)			0.31****	0.16, 0.59	0.31****	0.16, 0.60
Household income \$9001-\$20000 (>\$20000)			0.67	0.35, 1.30	0.69	0.35, 1.35
Missing income (>\$20000)			0.34***	0.16, 0.74	0.32***	0.15, 0.71
Receives public assistance (no assistance)			0.98	0.51, 1.88	0.99	0.51, 1.92
Female \times has major health problems					0.85	0.34, 2.11
Female \times no. of health problems					0.99	0.88, 1.12
Female × handle illness by self					0.65	0.29, 1.48
Female × cannot do much to keep from getting sick					0.69	0.30, 1.56
Female × has children					2.52**	1.06, 6.01

Note. OR = odds ratio; CI = confidence interval. * $P \le .10$; ** $P \le .05$; *** $P \le .01$; **** $P \le .001$.

TABLE 5—Logistic Regressions: Predictors of Health Care Coverage and Usual Source of Medical Care, Harlem Household Survey, 1992–1994

		Any C	overage		Any Usual Source of Care			
Characteristic (Reference Group)	Men (n = 287)		Women (n = 408)		Men (n = 287)		Women (n = 408)	
	Adjusted OR	95% CI	Adjusted OR	95% CI	Adjusted OR	95% CI	Adjusted OR	95% CI
Aged 18–24 y (50–65 y)	0.33*	0.10, 1.08	0.55	0.19, 1.62	0.26**	0.08, 0.83	1.77	0.61, 5.14
Aged 25-49 y (50-65 y)	0.64	0.27, 1.51	1.03	0.47, 2.28	0.62	0.28, 1.34	0.77	0.37, 1.60
Has children (no)	1.08	0.54, 2.18	0.79	0.33, 1.90	0.79	0.40, 1.53	2.29**	1.17, 4.47
Legally married (no)	0.86	0.39, 1.93	0.45*	0.20, 1.06	0.98	0.44, 2.19	1.04	0.44, 2.50
Has major health problems (no)	0.55	0.25, 1.22	1.71	0.73, 4.00	2.43**	1.13, 5.24	1.59	0.80, 3.13
Has asthma, hypertension, or diabetes (no)	1.72	0.77, 3.84	1.15	0.53, 2.47	0.91	0.42, 1.94	1.69	0.87, 3.29
No. of symptoms	1.05	0.95, 1.15	1.05	0.96, 1.15	1.11**	1.01, 1.22	1.07*	0.99, 1.16
Bothered a lot by health problems (bothered none/some)	1.00	0.34, 2.95	0.64	0.24, 1.67	0.52	0.19, 1.37	1.91	0.77, 4.74
Agrees that a person cannot do much to keep from getting sick (disagrees)	0.83	0.44, 1.57	0.77	0.38, 1.54	1.78*	0.96, 3.28	1.07	0.59, 1.96
Agrees that ill person should always handle problem by him/herself before going to doctor (disagrees)	0.64	0.34, 1.23	1.00	0.50, 1.99	0.76	0.42, 1.40	0.51**	0.28, 0.91
Has private insurance (no coverage)					2.13*	0.93, 4.90	2.08	0.69, 6.25
Has public insurance (no coverage)			• • •		4.11***	1.47, 11.45	1.04	0.39, 2.79
Works full time (part time/unemployed)	1.45	0.68, 3.10	3.08**	1.27, 7.46	1.44	0.65, 3.20	1.85	0.69, 4.94
Has high school diploma or higher (no degree)	0.93	0.57, 1.52	1.65*	0.97, 2.82	1.65**	1.02, 2.67	1.05	0.66, 1.67
Household income <\$9000 (>\$20000)	0.38**	0.15, 0.99	0.13****	0.04, 0.38	0.27***	0.10, 0.72	0.42*	0.16, 1.07
Household income \$9001-\$20 000 (>\$20 000)	0.31***	0.13, 0.75	0.26***	0.09, 0.73	0.47	0.18, 1.22	1.31	0.4, 3.61
Missing income (>\$20 000)	0.25***	0.08, 0.74	0.17***	0.04, 0.66	0.20***	0.07, 0.62	0.56	0.16, 1.96
Receives public assistance (no assistance)	17.70****	5.98, 52.40	18.25****	7.45, 44.76	0.64	0.23, 1.75	1.36	0.52, 3.61

Note. OR = odds ratio; CI = confidence interval.

* $P \le .10$; ** $P \le .05$; *** $P \le .01$; **** $P \le .001$.

come was associated with reduced odds for men, while the relationship of income to having a usual source of care was of borderline significance among women. Full-time employment had no effect among either men or women, but having a high school diploma increased the odds of having a usual source of care for men.

Discussion

Gender differences in insurance coverage and having a regular source of medical care in this sample do not seem to be the result of a greater propensity among women to have public assistance benefits and health care-promoting perceptions and attitudes. Although public assistance appears to play a role in increased rates of insurance coverage among women nationally, public assistance was strongly related to assuring coverage of both men and women in the Harlem sample. The importance of public assistance in Har-

lem may reflect city policies at the time, which provided relatively liberal welfare and Medicaid benefits to men as well as women.

Employment-related factors (specifically, full-time work) increased the likelihood of coverage for women but not for men, after control for other variables, indicating that women are more likely than men to be insured through employer-based programs. Marital status and having children did not modify the relationship between gender and insurance coverage. In general, the determinants of health insurance coverage were quite similar for men and women. In this sample, socioeconomic advantage, particularly income, was the primary predictor of coverage for men as well as women, even after adjustment for health status, age, and marital status. Indeed, need for services, as measured by self-reported health, made no independent contribution to the odds of having insurance.

Thus, gender differences in insurance coverage in the Harlem sample stemmed from economic barriers related to employment, which give women an advantage over men, rather than greater access to public benefits among women. The higher rate of insurance coverage among women appeared to be, in large part, a function of differential access to insurance between men and women who worked full time. Separate analyses of the predictors of private insurance revealed that the odds of being privately insured were 5 times higher among women who worked full time than among men who worked full time. Possibly, women from urban, low-income communities are more likely than men to be employed in the types of full-time jobs that offer health insurance and that have more affordable employee premiums.

No strong influences emerged to help explain gender differentials in having a usual source of medical care. Health status and the perceived need for care had no influence on the greater propensity of women to have a usual source of care. However, only 2 measures of health-related attitudes were available, and it is possible that other unmeasured

dimensions of propensity for care influence gender differences in this area. Having children is an important factor influencing women's greater odds of having a regular provider. Gender maintained a strong effect on having a regular source of care when insurance coverage through both private and public means was controlled. Thus, the increased likelihood of women's having health insurance coverage does not seem to explain why women also are more likely to have a usual source of care.

Socioeconomic factors appear to be more influential among men than women in determining whether one has a regular provider. The gender difference in the overall prevalence of having a usual source of care is the apparent consequence of more women than men in the Harlem sample (57% vs 41%) using nonhospital sources for regular care, because almost equal proportions of men and women rely on hospital-based sources.³⁸ Important questions for future research include whether differences in access to nonhospital providers explain the gender variation in having a usual source of care and the relationship of type of insurance coverage to such access.

The present study had the advantage of relying on a community-based sample. This allowed a more in-depth look at how various factors operate in an underserved population. By focusing on a single community, the study controlled, in effect, the influence of state and local differences in health care systems and policies. In addition, many recent multivariate studies of the predictors of access to health care were based on selected samples of clinic users or special populations rather than on representative community samples. 13,16–18 While the present study included individuals 65 years of age, who were more likely to have public insurance coverage through Medicare, only 8 respondents were of this age group, minimizing the possibility of confounding age and insurance coverage.

Findings from this study, however, may be unique to the Harlem community. Other study limitations include the lack of measures of self-reported reasons why people were uninsured or had no usual source of care. Such measures may vary by gender and may help explain differences in outcomes. The study was cross sectional and could not disentangle the reciprocal influence of insurance and regular care source on health status and attitudes toward health and health care. The survey did not measure undercoverage and periods without coverage, which also are important indicators of access to care. Finally, the study predated the influence of managed care and welfare reform.

In conclusion, the lower rate of health care coverage among men than women in this urban, low-income community appeared to be, in part, the consequence of men's reduced access to private insurance through employment sources. Socioeconomic factors may be more important influences on gaining entry into the health care system for men than for women, even when insurance coverage is controlled. Public insurance facilitates access to a regular source of medical care for men but has no apparent impact for women. Thus, expanding the availability of both public insurance and affordable private coverage for men living in low-income communities is an important means of reducing gender disparities in access to health care. Finally, given the strong influence of public assistance on having insurance coverage, recent changes in welfare policy have dire implications for access to health care for both men and women living in low-income communities.

Acknowledgments

This research was supported by grant U48/ CCU209663 from the Centers for Disease Control and Prevention to the Harlem Health Promotion Center, a joint program of the Joseph L. Mailman School of Public Health of Columbia University and the Harlem Hospital Center. The Harlem Household Survey was approved by the Harlem Hospital Institutional Review Board.

I am grateful to Dr Alwyn Cohall, director of the Harlem Health Promotion Center, for his support and encouragement. Mary Irvine provided assistance in conducting the literature review, and Jennifer Ellis helped prepare the tables. Mary Clare Lennon provided helpful comments on the paper. I also thank Stephen Robinson and Goldie Watkins-Bryant of the Harlem Health Promotion Center Community Advisory Board for their insights on an earlier version. The entire Community Advisory Board is recognized for its ongoing leadership and commitment to the work of the Harlem Health Promotion Center.

The Harlem Household Survey is the result of a collaboration between many dedicated community members and researchers from Columbia University and Harlem Hospital. Their contributions to this study are gratefully acknowledged.

References

- 1. Self-assessed health status and selected behavioral risk factors among persons with and without health care coverage-United States, 1994-1995. JAMA. 1998;279:1063.
- 2. Vistnes JP, Monheit AC. Health Insurance Status of the Civilian Noninstitutionalized Population: 1996. Rockville, Md: Agency for Health Care Policy and Research; 1997.
- 3. Fronstein P. Sources of Health Insurance and Characteristics of the Uninsured: Analysis of the March 1998 Current Population Survey. Washington, DC: Employee Benefit Research Institute; 1998. Issue brief 204.
- 4. Markowitz MA, Gold M, Rice T. Determinants of health insurance status among young adults. Med Care. 1991;29:6-19.

- 5. Buchmueller TC. Marital status, spousal coverage, and the gender gap in employer-sponsored health insurance. Inquiry. 1996;33:308-316.
- 6. Nelson DE, Thompson BL, Bland SD, Rubinson R. Trends in perceived cost as a barrier to medical care, 1991-1996. Am J Public Health. 1999;89:1410-1413.
- 7. Hayward RA, Bernard AM, Freeman HE, Corey CR. Regular source of ambulatory care and access to health services. Am J Public Health. 1991;81:434-438.
- 8. Demographic characteristics of persons without a regular source of medical care-selected states, 1995. JAMA. 1998;279:1340.
- 9. Moy E, Bartman BA, Clancy CM, Cornelius LJ. Changes in usual sources of medical care between 1987 and 1992. J Health Care Poor Underserved. 1998;9:126-139.
- Weinick RM, Zuvekas S, Drilea SK. Access to Health Care-Sources and Barriers, 1996. Rockville, Md: Agency for Health Care Policy and Research: 1997.
- 11. Andersen RM, Lyttle CS, Cornelius LJ. Sources and financing of medical care. In: Andersen RM, Aday LA, Cornelius LJ, Chen MS, eds. Ambulatory Care and Insurance Coverage in an Era of Constraint. Chicago, Ill: Pluribus Press and Center for Health Administration Studies, University of Chicago; 1987:49-73.
- 12. Weinick RM, Drilea SK. Usual sources of health care and barriers to care, 1996. Stat Bull Metrop Insur Co. January-March 1998:11-17.
- 13. Gallagher TC, Andersen RM, Koegel P, Gelberg L. Determinants of regular source of care among homeless adults in Los Angeles. Med Care. 1997;35:814-830.
- 14. Lewin-Epstein N. Determinants of regular source of health care in Black, Mexican, Puerto Rican, and non-Hispanic White populations. Med Care. 1991;29:543-557
- 15. Lurie N, Ward NB, Shapiro MF, Brook RH. Termination from Medi-Cal—does it affect health? N Engl J Med. 1984;311:480-484.
- 16. Rask KJ, Williams MV, Parker RM, McNagny SE. Obstacles predicting lack of a regular provider and delays in seeking care for patients at an urban public hospital. JAMA. 1994;271: 1931-1933.
- 17. Saver BG, Peterfreund N. Insurance, income, and access to ambulatory care in King County, Washington. Am J Public Health. 1993;83: 1583-1588.
- 18. Sonis J. Association between duration of residence and access to ambulatory care among Caribbean immigrant adolescents. Am J Public Health. 1998;88:964-966.
- 19. Zuvekas SH, Weinick RM. Changes in access to care, 1977-1996. Health Serv Res. 1999;34: 271-279.
- 20. Baker DW, Stevens CD, Brook RH. Regular source of ambulatory care and medical care utilization by patients presenting to a public hospital emergency department. JAMA. 1994;271: 1909-1912.
- 21. Cornelius LJ, Aday LA. Empirical and methodological studies of care. In: Andersen RM, Aday LA, Cornelius LJ, Chen MS, eds. Ambulatory Care and Insurance Coverage in an Era of Constraint. Chicago, Ill: Pluribus Press and Center for Health Administration Studies, University of Chicago; 1987:19-28.

- Cleary P, Mechanic D, Greenley J. Sex differences in medical care utilization: an empirical investigation. *J Health Soc Behav*. 1982;23: 106–119.
- 23. Gijsbers van Wijk CMT, van Vliet KP, Kolk AM, Everaerd WT. Symptom sensitivity and sex differences in physical morbidity: a review of health surveys in the United States and the Netherlands. Women Health. 1991;17:91–124.
- Green CA, Pope CR. Gender, psychosocial factors, and the use of medical services: a longitudinal analysis. Soc Sci Med. 1999;48: 1363–1372.
- Kandrack MA, Grant KR, Segall A. Gender differences in health related behaviour: some unanswered questions. Soc Sci Med. 1991;32: 579–590.
- Nathanson C. Sex, illness, and medical care: a review of data, theory, and method. Soc Sci Med. 1977;1:11–25.

- Popay J, Bartley M, Owen C. Gender inequalities in health: social position, affective disorders, and minor physical morbidity. Soc Sci Med. 1993;36:21–32.
- Verbrugge L. Gender and health: an update on hypotheses and evidence. *J Health Soc Behav*. 1985;26:156–182.
- Verbrugge L. Role burdens and physical health of women and men. Women Health. 1986; 11: 47–77.
- Anson O, Paran E, Neumann L, Chernichovsky
 D. Gender differences in health perceptions and their predictors. Soc Sci Med. 1993;36: 419–427.
- 31. Hibbard JH, Pope CR. The quality of social roles as predictors of morbidity and mortality. *Soc Sci Med.* 1993;36:217–225.
- 32. MacIntyre S, Hunt K, Sweeting H. Gender differences in health: are things really as simple as they seem? *Soc Sci Med.* 1996;42:617–624.

- Geronimus A, Bound J, Waidmann T, et al. Excess mortality among blacks and whites in the United States. N Engl J Med. 1996;335: 1552–1558.
- 34. McCord C, Freeman H. Excess mortality in Harlem. *N Engl J Med*. 1990;322:173–77.
- Kish L. Survey Sampling. New York, NY: John Wiley & Sons Inc; 1965.
- Northridge ME, Morabia A, Ganz ML, et al. Contribution of smoking to excess mortality in Harlem. Am J Epidemiol. 1998;147:250–258.
- Fullilove RE, Fullilove M, Northridge M, et al. Risk factors for excess mortality in Harlem: findings from the Harlem Household Survey. Am J Prev Med. 1999;16(suppl 3):22–28.
- Merzel C, Moon-Howard J. Access to ambulatory health care in an African American community. Paper presented at: 127th Annual Meeting of the American Public Health Association; November 7–11, 1999; Chicago, Ill.

916 American Journal of Public Health June 2000, Vol. 90, No. 6